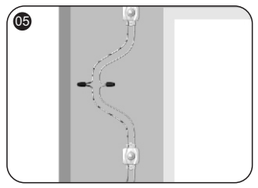
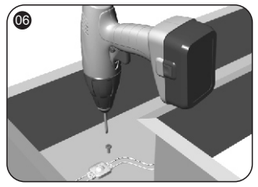
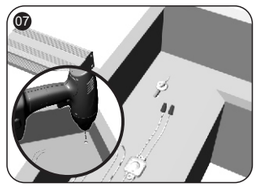


- Connect modules in cascade, join the red stripe wires together and white wires together with wire connectors, and treat them with waterproofing and anti-corrosion.

⚠ Notes: Please ensure the maximum cascade quantity is less than or equal to 30pcs when only one end of the module string is powered.

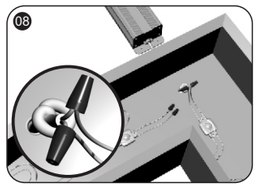


- Adjust the modules to the best position according to the effect of lighting distribution. Then, press the adhesive tape tightly and fix modules well with screws.



- Drill a hole in an appropriate position with an electrical drill, run the cable of power supply through the hole and fix and protect the cable well.

⚠ Notes: Drill a hole with a proper force to avoid the panel of the light box is broken due to the big force.



- Make sure the red stripe wire(+) and the white wire (-) of the modules connected to the output of the power supply rightly, and treat them with waterproofing and anti-corrosion.

NOTES

1. Installation notes:
   (1)Make sure the red stripe wire (+) and white wire (-) of the modules connected to the output of the power supply rightly; otherwise, the product can not work.
   (2)Drive the screws properly, too much or too small driving force will cause the installed hole deformed or cracked or modules tilting or loose fastening.
   (3)Connect wires to connectors solidly. It will be fine if the connectors can not be pull out easily by hand.
2. Notes for other installation materials used :
   (1)The wire connectors must be treated well for waterproofing and anti-corrosion.
   (2)The self-tapping screws should be selected appropriately based on the thickness and materials of the installation board.

(3)Modules maximum cascade number is 30pcs per string when only one end of the string is powered. Please choose safety certified Switch Mode power supply with DC12V output voltage and 30W rated power (with short-circuit, overvoltage and overloading protections and with maximum ±5% undulating voltage output) for ONE module string. If more modules are used, please make sure the power supply have 15% output surplus over its real load.

Malfunction&Solutions Table

Malfunction & Solutions Tables		
Malfunctions	Possible Causes	Solutions
None LED works	1, No electricity supplied.	Power on the supply power.
	2, The power supply is auto protected caused by the power supply output short or open circuit.	Remove any short-circuiting malfunctions, re-electrify the wires rightly.
	3, The input positive & negative wires of the modules are connected reversely.	
Part of the LEDs don't work	1, No output from part of power supply.	Check the power supply and remove malfunctions.
	2, Part of modules connected wrongly to the power supply.	
	3,Some modules' polarities connected reversely.	Connect the wires rightly.
Non-uniform or not enough LED brightness	1, The power supply is over loaded.	Use bigger or more power supplies.
	2, The voltage loss of the power supply is too big.	Ensure modules voltage with 12V±5%,shorten the power supply wire or use thicker wires or balance the wires distances to keep voltage loss in a balance.
	3, Too more LED modules cascaded.	Adjust each module cascade quantity to meet each electric current loop maximum load.
LEDs blinking	1,Intermittent connections.	Find the intermittent connections and remove any malfunctions.
	2,Failures of the power supplies.	Replace the power supplies.

⚠ WARNING

- Do not disassemble or modify the module; Don't touch LED surface with sharp tools.
- Don't install the modules during power on.
- Prohibited to use any organic chemical solvents.
- Forbid using any acid and alkali adhesive or glue to install the product. Please use neutral glass glue to fix the product, and cannot seal the light box or channel letter until the glue is solidified in the opening environment for 4 hours.
- During installing, please insulate all the exposed wires, meanwhile, treat them with waterproofing and anti-corrosion.
- Please choose 18AWG wires or thicker wires to use to avoid overload causing over-heat or other unwanted consequences.
- Before power on, please check whether the voltage is under rated voltage and the circuit is connected rightly.
- This products is applicable ONLY to the inside of the light boxes or channel letters, prohibited to be exposed in the outdoors directly!
- The products should be installed or maintained ONLY by the professional persons.
- The maximum available cascade of LED modules is 30pcs per string when only one end of the string is powered. Forbid exceeding.
- Generally the length of main cable cannot exceed 2m between power supply and module strings especially maximum 30pcs per string is applied. Otherwise, the voltage losing will increase, which will cause the inconsistent brightness between the two ends of module strings.

Declaration

- Warranty: 3 years or 13,000 hours, whichever comes first.
- If the external flexible cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.
- The given data in this manual is based on our standard product.
- The actually delivered products may vary. Please be subject to actual product data.
- All the product diagrams and pictures are schematic plots in this manual. Please quote according to the received goods.
- Modifications or revisions or innovations are not subject to prior notice.

Venus Series LED Modules
User Guide
M601FB

Read this manual carefully before using this product and keep it!

V1.0

备注：
1.尺寸：385*210mm;
2.材质：60G书纸；
3.公差：±1mm;
4.灰度双面印刷；
5.虚线不印刷，来料必须从虚线处折好。
6.对应旧编码:5524-089000-01。

说明书正面

				产品名称	启明星H	设 计	方艳平 2012.02.08	审 核		材 质	60G书纸
				产品型号	M601FB	工 艺		标准化		颜 色	灰度印刷
				零件编码	308-01-054	页 数	共 2 页 第 1 页	批 准		重 量	
版 本	变更人	变更日期	变更内容	零件名称	产品说明书（中性 英文）			图纸编号	WI-RD-8-11-112	比 例	1:1
										版 本	V0

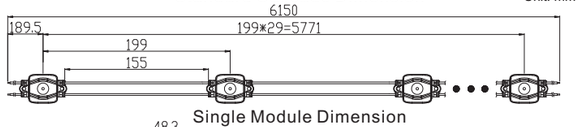
深圳市日上光电有限公司
SHENZHEN RISHANG OPTO-ELECTRONICS CO.,LTD

Model no. and Specification

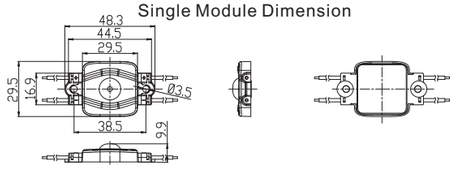
Model:	M601FB
Rated Power (W/piece):	0.7
Working Voltage (V):	DC12
IP Grade:	IP66
Operation Temperature (℃):	-25~60
Storage Temperature (℃):	-40~70

Profile

Standard Cascade Dimension Unit: mm

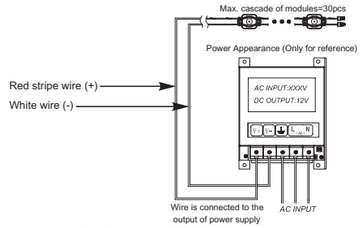


Single Module Dimension



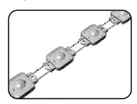
Parts and Tools

1. Installation and Connection Illustration:



2. Product parts and Self-provided tools:

(1) Product Parts



M601FB(30PCS)

Wire connectors (6PCS)

(2) Self-provided tools

Cutting Nipper, Electrical Drill&Drilling Bit

Self-tapping Screw (ST2.9)

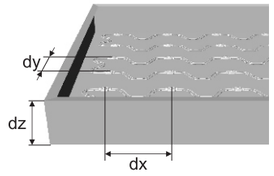
Installation & Application Examples

1. Layout for Light box

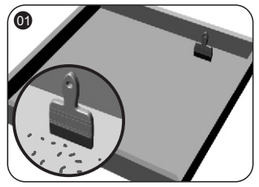
Reference Scheme (White Lighting)

Light Box Thickness(mm)	Space between Modules(mm)	Installation Density (pcs/m²)	Illumination Scope(lux)
dz=100	dx=90 dy=60	185	5000 - 6200
dz=120	dx=110 dy=80	114	3300 - 4200
dz=140	dx=130 dy=100	77	2900 - 3300
dz=160	dx=150 dy=120	56	2100 - 2400
dz=180	dx=170 dy=140	42	1700 - 1900
dz=200	dx=190 dy=160	33	1400 - 1600
dz=220	dx=210 dy=180	26	1200 - 1400

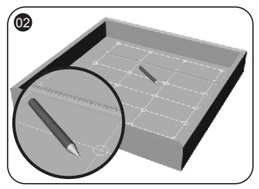
Remark:
1. Tested in 3mm thick white acrylic board with 54.4% light transmitting rate.
2. All illumination data in the table are the minimum with uniform acrylic surface illumination.
3. The above data are only for reference.



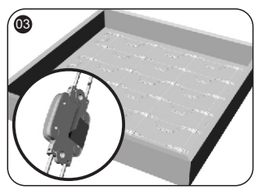
Install Procedures



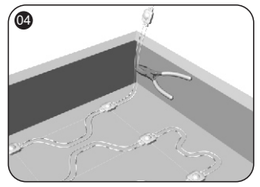
● Clean the installation surface.



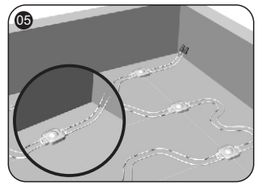
● Mark the layout guidelines so that the modules can be spaced evenly in light box.



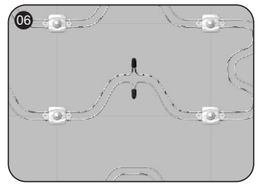
● Peel off backing to expose adhesive tape of modules and stick modules on the installation surface for preliminary mounting.



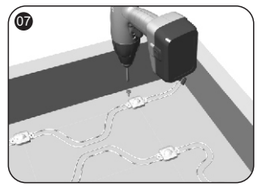
● Cut off the excessive module(s) after modules layout, then strip 10mm length of the cutting wires.
⚠ Notes: Cutting position should be at the middle of the wire.



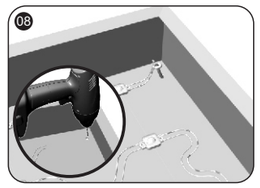
● Cap exposed wires of the last module with two wire connectors, and seal with resin for waterproofing and anti-corrosion.



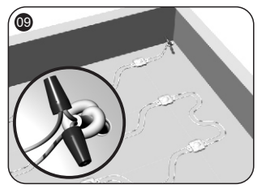
● Connect modules in cascade, join the red stripe wires together and white wires together with wire connectors, and treat them for waterproofing and anti-corrosion.
⚠ Notes: Please ensure the maximum cascade quantity is less than or equal to 30pcs when only one end of the module string is powered.



● Adjust the modules to the best positions according to the effect of lighting distribution. Then, press the adhesive tape tightly and fix modules well with screws.



● Drill a hole in an appropriate position with an electrical drill, run the cable of power supply through the hole and fix and protect the cable well.
⚠ Notes: Drill a hole with a proper force to avoid the panel of the light box is broken due to the big force.



● Make sure red stripe wire (+) and white wire (-) of modules strings connected to the output of the power supply rightly, and treat them with waterproofing and anti-corrosion.

2.Layout of the Channel Letters

Reference Scheme (White Lighting)

Channel Letters				Modules			
Strokes Width (mm)	Thickness (mm)	Dimension (mm)	Square Meter (m^2)	Maximum Space between Modules (mm)	Overall Quantity (pcs)	Installation Density (pcs/m^2)	Illumination Scope (lux)
A90	H80	L710*W430	0.3	100	20	67	4300-5300
A110	H100	L855*W525	0.45	120	19	42	2500-3500
A140	H120	L1040*W653	0.68	150	22	32	1900-2400
A150	H150	L1194*W710	0.85	180	20	24	1800-2200
A170	H180	L1490*W900	1.34	200	22	16	1300-1600

Remark:
1. Tested in 3mm thick white acrylic board with 54.4% light transmitting rate.
2. All illumination data in the table are the minimum with uniform acrylic surface illumination.
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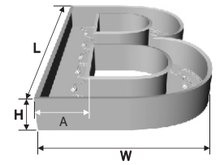
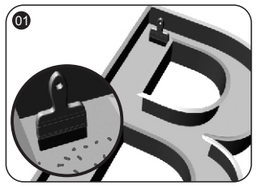
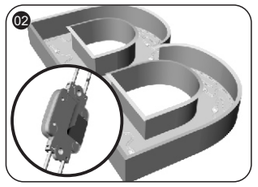


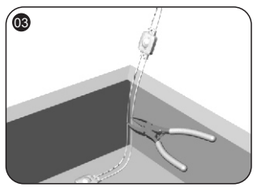
Install Procedures



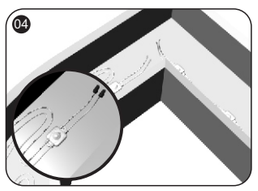
● Clean the installation surface.



● Peel off backing to expose adhesive tape of modules and stick modules on the installation surface for preliminary mounting.



● Cut off the excessive module(s) after modules layout, then strip 10mm length of the cutting wires.
⚠ Notes: Cutting position should be at the middle of the wire.



● Cap exposed wires of the last module(s) with two wire connectors, and seal with resin for waterproofing and anti-corrosion.

说明书背面

备注：
1.尺寸：385*210mm;
2.材质：60G书纸;
3.公差：±1mm;
4.灰度双面印刷;
5.虚线不印刷，来料必须从虚线处折好。
6.对应旧编码:5524-089000-01。

RISHANG 日上光电 深圳市日上光电有限公司 SHENZHEN RISHANG OPTO-ELECTRONICS CO.,LTD

				产品名称	启明星H	设 计	方艳平 2012.02.08	审 核		材 质	60G书纸
				产品型号	M601FB	工 艺		标准化		颜 色	灰度印刷
				零件编码	308-01-054	页 数	共 2 页 第 2 页	批 准		重 量	
版 本	变更人	变更日期	变更内容	零件名称	产品说明书（中性 英文）			图纸编号	WI-RD-8-11-112	比 例	1:1
										版 本	V0